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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,813	08/19/2003	Kouji Oohara	SIC-03-024	1812

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DELAND LAW OFFICE
P.O. BOX 69
KLAMATH RIVER, CA 96050-0069

EXAMINER	
PARRIES, DRU M	
ART UNIT	**PAPER NUMBER**
2836	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/27/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/604,813	OOHARA, KOUJI	
	Examiner	Art Unit	
	Dru M. Parries	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 12-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed November 1, 2006 have been fully considered but they are not persuasive. Regarding the amendment to claim 1, Schwaller and Prior Art (Admission) are still believed to teach the added limitation to claim 1. In the previous Office Action it is stated that "Admission teaches bicycles that have controllers for automatically changing gears," and this reads on the newly added limitation, because the above is saying that a controller sends control signals (not power) to the gears to change them (i.e. control their operation).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5, 7-10, 12-13, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaller (5,247,430) and Prior Art (Admission). Schwaller teaches a power circuit providing power, derived from AC (G) and DC (battery, 8) sources, to a plurality of bicycle components (V_L, R_L) (Fig. 4). He also teaches a control and power stabilizing circuit (1) that controls and stabilizes power and voltage to bicycle components via pulsed signal that has ON and OFF components (Col. 3, lines 31-36). He also teaches the stabilizing circuit having a capacitor (Fig. 2). Schwaller also teaches the AC power being provided from a dynamo hub mounted on the front wheel of the bicycle (Col. 9, lines 12-14; Fig. 12). Schwaller also teaches a control circuit (1) that provides a pulsed component via pulsed signal that has ON and OFF

components (Col. 3, lines 31-36). Schwaller fails to teach having controllers for automatically changing the gears on the bicycle and the power and control circuit together that provides a composite signal having the power and control signal. Admission teaches bicycles that have controllers for automatically changing the gears ([0002]; speed indicating signal) and the technology for communicating power and control signals using composite signals (first sentence of [0003]). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a controller for automatically switching the gears into Schwaller's system because it adds an extra feature that makes the bicycle be used more efficiently and to use composite signals throughout the bicycle system to reduce the number of wires used around the bicycle.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaller (5,247,430) and Prior Art (Admission) as applied to claims 1 and 5 above, and further in view of Gohda (4,609,982). Schwaller teaches a control circuit as described above. Schwaller fails to teach a diode for preventing reverse current. Gohda teaches a stabilizing circuit having a diode (D1) coupled to prevent reverse current to the power circuit (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to add a diode into Schwaller's invention to prevent reverse current from flowing back into the dynamo.

5. Claims 14-19, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaller (5,247,430) and Prior Art (Admission) as applied to claims 1, 12, 13 and 23 above, and further in view of Turner (2002/0014366). Schwaller teaches a control circuit as described above. He also teaches having composite signals being supplied throughout the bicycle control circuit as described above. Schwaller also teaches stabilizing the power and voltage provided to

the second electrical component, which comprises a light, being controlled, not by the control signal but, only by just the power/voltage being supplied to the loads (V_L, R_L). Schwaller fails to teach a first electrical component and some second electrical components. Turner teaches a first electrical component, controlled by the control signal, being an LCD (186) to display various data, or a gearshift driving component (166, 168) and a second electrical component being a backlight of the LCD display. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the first electrical components into the bicycle because it allows for more control and knowledge about the bicycle system and how it is functioning. It also would have been obvious to one of ordinary skill in the art at the time of the invention to not stabilize the power signal to the first electrical component because doing so would destroy the control signal being sent to the first component, which is necessary for the component's functionality.

6. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaller (5,247,430), Prior Art (Admission), and Turner (2002/0014366) as applied to claims 1, 12, 13, 14, 15, and 19 above, and further in view of Gohda (4,609,982). Schwaller teaches a control circuit as described above. Schwaller also teaches a power stabilizing circuit comprising a power storage device in the form of a capacitor (Fig. 2). Schwaller fails to teach a diode in the stabilizing circuit. Gohda teaches a stabilizing circuit having a diode (D1) coupled to prevent reverse current to the power circuit (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to add a diode into Schwaller's invention to prevent reverse current from flowing back into the dynamo.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaller (5,247,430) and Prior Art (Admission) as applied to claims 1 and 26 above, and further in view of Tomita (JP 07-229909 A). Schwaller teaches a hub dynamo mounted on the wheel of the bicycle. Admission teaches a controller automatically changing the gears of the bicycle (via speed indicating signals). Neither explicitly teaches how the controller determines when to change the gears of the bicycle (i.e. send a speed indicating signal). Tomita teaches a speedometer, which consists of a waveform shaping circuit, inside the controller, that displays the running speed of a bicycle based on the output of an alternating current generator (i.e. the hub dynamo) (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to implement this circuit into the Schwaller/Admission invention since it shows a method of determining the speed and consequently when to change the gears of the bicycle, since Admission was silent as to how the controller determines when to automatically change the gears and Tomita teaches a method of determining when to do so.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on Monday -Thursday from 9:00am to 6:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on 571-272-2800 x 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

12-11-2006

CHAU N. NGUYEN
PRIMARY EXAMINER